

REMARKS

Claims 8-27 are now in this application.

The Commissioner is authorized to charge a fee of \$120.00, for a first month extension of time, and any or all other necessary fees in connection with this communication to Deposit Account Number 07-2100.

By this amendment, the abstract and claims 10 and 11 have been revised as suggested by the examiner.

Also, new claims 20-27 have been presented. Claim 20 is a new independent claim which is loosely based on claim 8. However, in claim 20 the air and reducing agent are clearly acted on by structure which introduces both of them into the mixing chamber as an aerosol, and in the last four lines of claim 20, at least part of these means, along with the mixing chamber, are recited to be secured to or integrated with a block of an electrically conductive plastic. Further, claim 20 clearly recites that the aerosol is dispensed into an aerosol line which communicates to the exhaust system.

Claims 21-27 are basically copies of claims 9-14 and 17-18, respectively, except having their dependency modified as appropriate.

In paragraph 5 of the Office action, the examiner rejected claims 8-19 as unpatentable over Hofmann et al in view of Moore et al. The examiner's rejection is traversed for the following reasons.

First, the examiner has called valve 20 of Hofmann et al a mixing chamber. At column 7, lines 53-61, Hofmann et al describe valve 20 as having three states of operation. In the first

state, valve 20 opens the flow through line 12 and communicates line 12 to exhaust system 42. In its second state the valve 20 closes line 12 from source 6, and pressure from source 28 blows all urea solution from valve 20 through to nozzle 22, clearing this portion of the urea line. In its third state, valve 20 closes line 12 towards nozzle 22, and allows air from source 28 to clear urea solution from valve 20 back towards reservoir 6. Hofmann et al never recites that any form of mixing occurs in valve 20.

Thus, contrary to the examiner's allegation, valve 20 is not a mixing chamber.

As a consequence of understanding this, it becomes clear that Hofmann et al does not teach a chamber which mixes any reducing agent, urea or otherwise, with air as recited in the claims. And Hofmann et al does not teach any means for delivery of air into a mixing chamber. Hofmann et al does not teach any means for metered delivery of any reducing agent into a mixing chamber. Hofmann et al does not have any means for forming an aerosol of air and reducing agent. And Hofmann et al does not have any means for metered dispensing of any aerosol consisting of the air-reducing agent as mixed in the claimed mixing chamber.

Next, the examiner calls means 34 of Hofmann et al a means for forming an aerosol. But 34 is merely the block of movable part of valve 20. It does not form an aerosol. And nowhere in Hofmann et al is there any mention of means for forming an aerosol. The closest to such a recitation occurs in column 3 lines 62+ of Hofmann et al, wherein it is stated that the liquid can be atomized when it is introduced into the flow medium at the outlet opening (in all other sections of Hofmann et al where "outlet opening" is recited, it is the outlet opening 22, which is within the exhaust system 42).

In column 3 Hofmann et al go on to recite that the atomization is created at the outlet opening through the use of pressurized air which is introduced into the supply line through the back flush valve. But Hofmann et al give no explanation of how this might happen, and no showing of any structure whatsoever which could make it happen, especially not within back flush valve 20. The back flush valve 20 is not shown to have, and is not disclosed to have, any means for introducing air when the valve 20 is in position to allow line 12 to communicate with outlet opening 22.

Clearly, the teaching of Hofmann et al is lacking in these respects, is ambiguous and cannot properly be used as a teaching of the means which applicants are reciting in the claims.

The examiner goes on to say that Hofmann et al include means for metered dispensing of the aerosol. Again, since Hofmann et al is not clear about any teaching for forming an aerosol, there can certainly not be any teaching of metering such aerosol. Moreover, at best valve 20 can be placed in its middle position as shown in figure 4, and this permits fluid to flow through the line 12, but this is not the same as the metering as is recited in applicants' claims.

The examiner might possibly be able to argue that for the very briefest of moments, as section 34 of valve 20 is first opened, there could be a very small amount of aerosol accidentally created. But if so, it is only an infinitesimal amount, certainly not enough to be considered as an operating state of the device of Hofmann et al. As opposed to such a strained reading, applicants' claims recite, as part of the apparatus for metering the reducing agent, a means for metered dispensing of the aerosol into an aerosol line. Clearly Hofmann et al does not teach this aspect of applicants' recited structure.

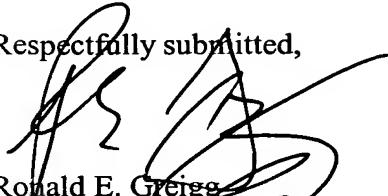
But even if, arguendo, it can be said that an aerosol is accidentally formed, it is still not seen where the examiner feels there is any means for metered dispensing of such aerosol into an aerosol line, nor is it seen that Hofmann et al teaches any structure which could be said that the air delivery is meterable. And it cannot be agreed that the valve 20 is a mixing means. Section 34 of the valve is not a means for forming an aerosol, it is merely the section of valve 20 which permits blowing out of line 12 from valve 20 to outlet opening 22. And further, Hofmann et al does not provide any means for metered dispensing of any aerosol, even if somehow such an aerosol were created.

The examiner has added the reference to Moore et al to the teaching of Hofmann et al so as to add the teaching of a heater. Such teaching, and the obviousness of adding a heater to Hofmann et al is not controverted, as Hofmann et al already have a heater taught at elements 44-46. But Moore et al does not teach anything which could be considered to provide the deficiencies mentioned above with respect to Hofmann et al. For the rejection of the claims to be a valid rejection, Hofmann et al would first have to teach the basic structure recited in the claims. However, Hofmann et al does not do this.

Appl. No. 10/019,020
Amdt. dated September 12, 2005
Reply to Office action of May 18, 2005

For the above reasons, entry of the amendment and allowance of the claims are
courteously solicited.

Respectfully submitted,



Ronald E. Greigg
Attorney for Applicants
Registration No. 31,517
CUSTOMER NO. 02119

GREIGG & GREIGG, P.L.L.C.
1423 Powhatan Street, Suite One
Alexandria, VA 22314
Tel. (703) 838-5500
Fax. (703) 838-5554

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